

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025830**Date Inspected:** 07-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	N/A			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG		

**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Caltrans and ZPMC have agreed to conduct visual and magnetic particle inspections (MT) of segment 14West welds as part of a special inspection program, reference NWIT number 9667. This QA Inspector observed ZPMC Inspectors had completed and accepted MT inspections of segment 14W welds: SEG3019AA-055, 056, 057, 061, 062, 063, 064, 065 and 066. ZPMC Inspectors rejected welds SEG3019AA- 058, 059 and 060. This QA Inspector performed random visual and magnetic particle inspection of welds: SEG3019AA-055, 056, 057, 061, 062, 063, 064, 065 and 066. This QA Inspector observed weld SEG3019AA-056, which had been accepted by a ZPMC MT Inspector appeared to have a linear indication. ZPMC workers used a grinder to lightly grind the linear indication in weld SEG3019AA-056 and ZPMC MT Inspection personnel confirmed the linear indication remained following this grinding. This QA Inspector informed ZPMC MT Inspector Mr. Xie Gen Lin that an incident report would be issued to document this MT rejection. The other welds that were MT inspected by this QA Inspector appear to comply with AWS D1.5 MT and visual requirements. For additional information on these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report and the photographs below.

Caltrans and ABF have agreed to conduct visual and magnetic particle inspections (MT) of segment 13East welds as part of a special inspection program, reference NWIT number 9667. This QA Inspector observed ABF Inspectors had completed and accepted MT inspections of temporary alignment plate welds on segment 13BE and

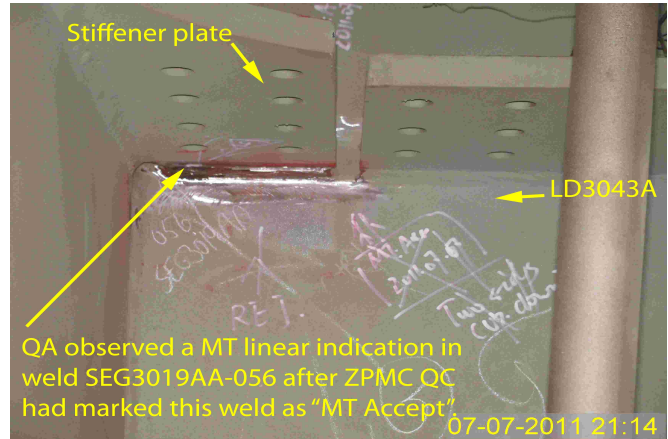
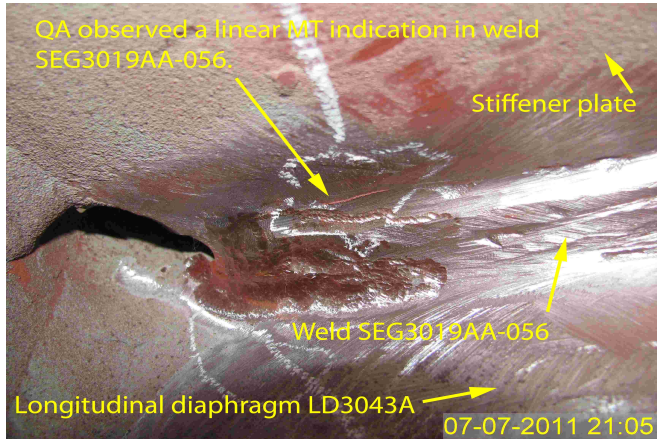
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## WELDING INSPECTION REPORT

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13CE side plates SP3078B, SP3080A adjacent to where the architectural housing will be welded. These temporary alignment plate welds did not have any numbers assigned to identify their locations. ABF Inspectors rejected approximately five of these weld removal areas and ZPMC workers ground these areas prior to ABF MT reinspections. Two areas near the end of segment 13CE appear to have been ground to a depth of approximately 1.5mm and these areas have been identified as needing to be weld repaired. This QA Inspector performed random visual and magnetic particle inspection of approximately 15 percent of these weld removal areas that had been previously MT accepted by ABF Inspectors and no additional MT indications were observed by this QA Inspector. For additional information on these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report.



### Summary of Conversations:

See Above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Dawson,Paul

Quality Assurance Inspector

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**Reviewed By:** Riley,Ken

QA Reviewer